

Case Study

Reducing GPS Scrap Costs Through Advanced Densification

Client Overview:

- A major manufacturer of HFC- and HCFC-free Molded Polystyrene (MPS) insulation for construction, packaging, & original equipment manufacturers (OEM) applications
- Market trends and customer requests for material that can provide increased R-value has led to the facility plant molding graphite polystyrene (GPS), which is a rigid, foam insulation that gives maximum efficiency, cost-effectiveness and sustainability on construction projects. Its unique silver-gray color and exceptional insulation characteristics are a result of high-purity graphite that reflects and absorbs radiant energy, decreasing the materials thermal conductivity and increasing its R-value.
- While molding and producing GPS provides their customers with solutions, the recycling of GPS is not as far along as Expanded Polystyrene (EPS) is.
- GPS scrap if not run through a pre-breaker or grinder can take up a lot of space and while the weight may be low the volume may be high thus resulting in high waste removal costs.

Objective:

To Identify and implement solutions to process GPS scrap in a cost effective and environmentally friendly manner.

Solution:

Sebright Products worked with the manufacturer to process GPS scrap with a pre-breaker and a D30 Densifier system.

Results:

- Sebright Products' D30 Densifier was able to process the GPS scrap and densify it, which reduced the waste removal costs by nearly \$10,000 per month.

Waste Removal Savings:

- 1 month = \$10,000
- \$10,000 monthly x 12 months = \$120,000 annual savings

Conclusion:

By implementing Sebright Products' custom D30 Densifier system, the GPS manufacturer successfully transformed a high-volume, costly GPS waste stream into a manageable, value-driven process. The solution not only achieved the objective of cost-effective and environmentally responsible GPS scrap handling, but also delivered measurable operational and financial benefits—including nearly \$120,000 in annual waste removal savings. With increased throughput, improved material density, and reduced labor and hauling demands, the facility now operates more efficiently while advancing its sustainability goals, reinforcing Sebright Products' role as a trusted partner in innovative recycling solutions.

